



# S2A ~ S2M

**PRV : 50 - 1000 Volts**

**Io : 2.0 Ampere**

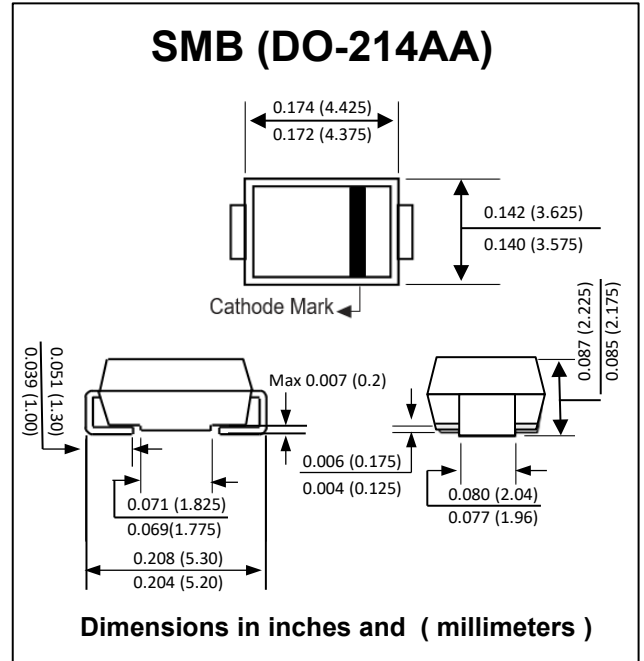
**FEATURES :**

- \* Glass passivate junction chip
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : SMB Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Indicated by cathode band
- \* Mounting position : Any
- \* Weight : 0.093 gram

## SURFACE MOUNT RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

RATING	SYMBOL	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current at T <sub>L</sub> = 110 °C	I <sub>F(AV)</sub>	2.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method) T <sub>L</sub> = 100 °C	I <sub>FSM</sub>	60							A
Maximum Instantaneous Forward Voltage at I <sub>F</sub> = 2.0 A.	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current Ta = 25 °C	I <sub>R</sub>	5.0							μA
at rated DC Blocking Voltage Ta = 125 °C	I <sub>R(H)</sub>	200							μA
Typical thermal resistance	R <sub>θJL</sub>	16							°C/W
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	30							pF
Junction Temperature Range	T <sub>J</sub>	- 55 to + 150							°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150							°C

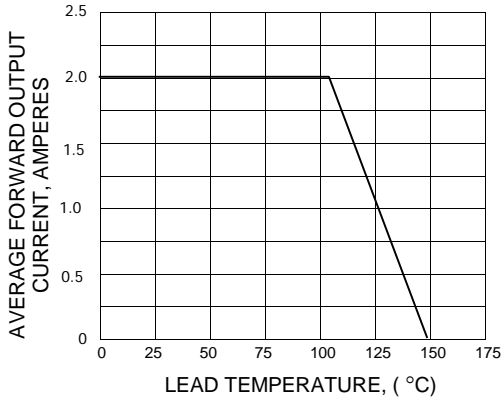
**Notes :**

(1) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC

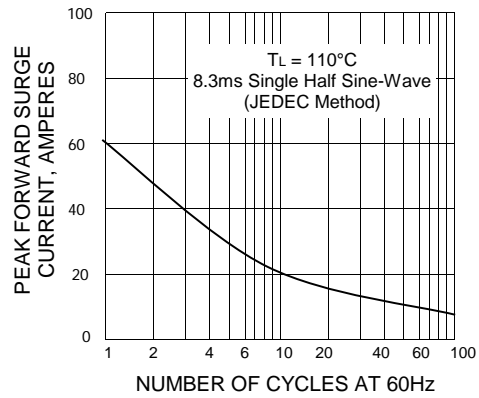


**RATING AND CHARACTERISTIC CURVES ( S2A - S2M )**

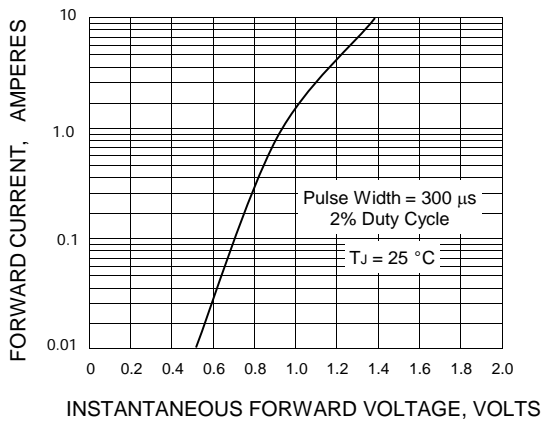
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



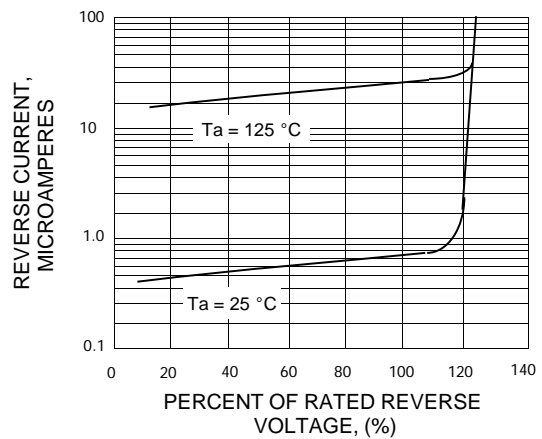
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

